ACUTE CORONARY SYNDROMES ALGORITHM



Patient has signs suggestive of ischemia or infarction

EMS ASSESSMENT, CARE, AND HOSPITAL

PRFPARATION

- 1 MONITOR & SUPPORT ABC'S
 - > Prepare to provide CPR or defibrillate if needed
- (2) ADMINISTER ASPIRIN
 - > Consider oxygen, nitroglycerin, and morphine
- (3) OBTAIN 12-LEAD ECG: INTERPRET/TRANSMIT
 - > If ST elevation, note time of onset and first medical contact and notify receiving hospital.
- 4 STEMI RESPONSE
 - > Notified hospital should mobilize hospital resources
- **(5)** COMPLETE FIBRINOLYTIC CHECKLIST
 - > If considering prehospital fibrinolysis, use fibrinolytic checklist

CONCURRENT **ED ASSESSMENT** (<10 MINUTES)

- CHECK VITAL SIGNS & OXYGEN SAT
- ESTABLISH IV ACCESS
- BRIEF HISTORY & PHYSICAL
- OBTAIN INITIAL CARDIAC MARKERS
 - > And initial electrolyte and coagulation studies
- PORTABLE CHEST X-RAY (<30 MIN)

≥ 12

Hours >

- START OXYGEN
- > At 4 L/min, titrate if 0₂ sat <90%
- ADMINISTER ASPIRIN
 - > 160 to 325 mg (if not given by EMS)
- ADMINISTER NITOGLYCERIN
 - > Sublingual or spray
- ADMINISTER MORPHINE IV
 - > If nitroglycerin doesn't relieve discomfort

IMMEDIATE ED TRFATMENT

ECG Interpretation

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ST-Elevation MI (STEMI)

ST elevation or new or presumably new LBBB; strongly suspicious for injury

Low/Intermediate-Risk ACS

Normal or nondiagnostic changes in ST segment or T wave

- Start adjunctive therapies as indicated
- Don't delay reperfusion

High-Risk Non-ST-Elevation ACS

ST depression or dynamic T-wave inversion; strongly suspicious for ischemia

Admission OR Monitoring

Consider admission to ED chest pain unit or to appropriate bed for further monitoring and possible intervention

Time from onset of symptoms is:

< 12 Hours

Reperfusion Goals:

Therapy defined by patient & center criteria

- Door-to-balloon inflation (PCI) > Goal: 90 Minutes
- Door-to-needle fibrinolysis

> Goal: 30 Minutes

Troponin Elevated OR High-Risk Patient

- Consider Early invasive strategy if:
- > Refractory ischemic chest discomfort
- > Recurrent / persistent ST deviation
- > Ventricular tachycardia
- > Hemodynamic instability
- > Signs of heart failure
- Start Adjunctive Therapies:
- > eg. Nitroglycerin, heparin as indicated
- > See AHA/ACC NSTE-ACS guidelines

